

**Amendment to the Claims:**

This listing of claims will replace all versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1 – 13 (Canceled)

14. (New)      An apparatus comprising:

a tracking implementation for tracking signal strength of each wireless client's wireless link with each respective wireless access point for a plurality of wireless clients in communication with a plurality of access points; and

a control implementation for varying the operation of at least one of the respective wireless access points and wireless clients so as to acquire maximum signal strength for each wireless client's link with each respective wireless access point.

15. (New)      The apparatus of claim 14, further comprising the tracking implementation is configured to track one of a group consisting of packet error rate, channel; rate and processor performance.

16. (New)      The apparatus of claim 14, wherein the control implementation includes at least one control mechanism to vary the operation of at least one of the wireless access points and the wireless clients, wherein the at least one control mechanism is selected from a group including: a WLAN client admission control; a mechanism for varying the signal power of at least one of the clients and the access points; a mechanism for changing at least one of the data rate, coding, and modulation of the wireless signal; and a mechanism for varying the packet length and other controllable protocol characteristics.

17. (New) An apparatus, comprising:

a tracking implementation for tracking a link quality parameter selected from a group consisting of multipath, signal interference, packet loss, signal quality, transfer rate and packet loss for each link between a wireless client and an access point for a plurality of wireless clients in communication with a plurality of access points;

a goal implementation for comparing the link quality parameter with a desired value to obtain a fitness measure; and

a control implementation for varying the operation of at least one of the plurality of wireless access points and plurality of wireless clients in response to the fitness measure, so as to acquire one of a group consisting of minimal multipath, minimal signal interference, minimal packet loss, minimal packet error rate and maximum transfer rate for each link between a wireless client and an access point for a plurality of wireless clients in communication with a plurality of access points.

18. (New) The apparatus of claim 17, wherein the control implementation includes at least one control mechanism to vary the operation of at least one of the wireless access points and the wireless clients, wherein the at least one control mechanism is selected from a group including: a mechanism for varying the signal power of at least one of the clients and the access points; a mechanism for changing at least one of the data rate, coding, and modulation of the wireless signal; and a mechanism for varying the packet length.

19. (New) The apparatus of claim 17, wherein the signal quality parameter is multipath and the control implementation varies the operation of at least one of the plurality of wireless access points and plurality of wireless clients to acquire minimal multipath for each link between a wireless client and an access point for a plurality of wireless clients in communication with a plurality of access points.

20. (New) The apparatus of claim 17, wherein the signal quality parameter is packet loss and the control implementation varies the operation of at least one of the plurality of wireless access points and plurality of wireless clients to acquire minimal packet loss for each

link between a wireless client and an access point for a plurality of wireless clients in communication with a plurality of access points.

21. (New) The apparatus of claim 17, wherein the signal quality parameter is packet error and the control implementation varies the operation of at least one of the plurality of wireless access points and plurality of wireless clients to acquire minimal packet error for each link between a wireless client and an access point for a plurality of wireless clients in communication with a plurality of access points.

22. (New) The apparatus of claim 17, wherein the signal quality parameter is signal interference and the control implementation varies the operation of at least one of the plurality of wireless access points and plurality of wireless clients to acquire minimal signal interference for each link between a wireless client and an access point for a plurality of wireless clients in communication with a plurality of access points.

23. (New) The apparatus of claim 17, wherein the signal quality parameter is transfer rate and the control implementation varies the operation of at least one of the plurality of wireless access points and plurality of wireless clients to acquire maximum transfer rate for each link between a wireless client and an access point for a plurality of wireless clients in communication with a plurality of access points.

24. (New) The apparatus of claim 17, wherein the control is selected from a group consisting of change frequency, directionally steer an antenna and steer antenna polarization for at least one of the plurality of access points.